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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/549,681 | 09/19/2005 | Giulio Boara | 76018-4393 | 1153 |
| 66991 7590 04/17/2009 LAW OFFICE OF MICHAEL A. SANZO, LLC 15400 CALHOUN DR. SUITE 125 ROCKVILLE, MD 20855 | | | | |
| EXAMINER ROYSTON, ELIZABETH | | | | |
| ART UNIT 4122 | | PAPER NUMBER | | |
| MAIL DATE 04/17/2009 | | DELIVERY MODE PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,681

Applicant(s)

BOARA ET AL.

Examiner

Elizabeth S. Royston

Art Unit

4122

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/19/2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date 7/30/2008, 3/20/2009, 3/27/2009.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 12-24 in the reply filed on 4/4/2009 is acknowledged.
2. The amendment of claims 12-24 and the addition of claims 25-27 in the reply filed on 4/4/2009 are acknowledged.
3. The cancellation of claims 5-11 in the reply filed on 4/4/2009 is acknowledged.

Specification

4. The disclosure is objected to because of the following informalities: The description of figure 2, of "other possible employment" (p. 7, line 8-9), is insufficient to explain the information presented in the figure.

Appropriate correction is required.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a) because figures 1 and 2 fail to show distinctly which section(s) of the structures constitute the molded silica "monolith", as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 14, 15, 18, 19, 23, and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that these claims fail to point out what is included or excluded by the claim language. These claims are omnibus type claims.
8. Claims 14, 15, 18, 19, 23, and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear which sections of

the shapes presented in figures constitute the molded silica portion (the "core" or the "mantle"). For purposes of examination, and based upon the prior art disclosed by applicant concerning optical fibers, the shaped center "core" is interpreted as being made from the germanium-doped silicon dioxide and the cylindrical volume excluding the shaped center, or "mantle", is interpreted as being made from the un-doped silicon dioxide.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 12, 13, 15-17, 19-22, and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuo (US PN 4680046).

With regard to claims 12 and 25-27, Matsuo teaches a sintered silica shaped article (abstract; col. 12-13, Example 7).

If there is any difference between the product of Matsuo and the product of the instant claim(s) the difference would have been minor and obvious.

Claims 12 and 25-27 are viewed as product-by-process claims and hence the methods they are created by are not pertinent, unless applicant can show a different product is produced. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The

patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." See MPEP 2113.

With regard to claims 13 and 15, Matsuo teaches a sintered silica cylindrical optical fiber preform (Example 7 - col. 13, line 6-8, 39-43).

With regard to claim 16, 17, 19-21, and 24 Matsuo teaches a sintered silica cylindrical optical fiber preform doped with at least one element selected from the group IIIa, IVa, Va, IIIb, or Vb of the periodic table, specifically germanium (col. 3, line 58-61; col. 4, line 5-6; Example 7 - col. 13, lines 6-8, 14-20, 39-40).

With regard to claim 22, Matsui teaches a germanium-doped sintered silica optical fiber (col. 12, line 22-23; col. 13, line 50-52).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 14, 18, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo (US PN 4680046) in view of Kajioaka (US PN 4859223), as evidenced by Yoshida (JP 2002-293548).

The teachings of Matsuda are detailed in the rejection of claims 12, 13, 15-17, 19-22, and 24-27 under 35 USC 102(b) above.

With regard to claims 14, 18, and 23, Matsuda does not specifically disclose a shape such as that described by figure 1.

Kajioaka teaches an optical fiber preform with a rectangular core (figure 6c), in addition to PANDA, as evidenced by Yoshida (figure 2), and elliptical cores (col. 1, line 15-16).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the shape taught by Kajioaka with the method taught by Matsui. The rationale to do so would have been the motivation provided by the teaching of Kajioaka, that to use rectangular core predictably creates polarization-maintaining optical fibers which do not deteriorate the transmission quality in a long-distance transmission (col. 2, line 44-47).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Huang (US PN 4943132): optical fiber preform shapes.

Takuma (US PN 4818047): optical fiber preform shapes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth S. Royston whose telephone number is 571-270-7654. The examiner can normally be reached on M-Th 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.